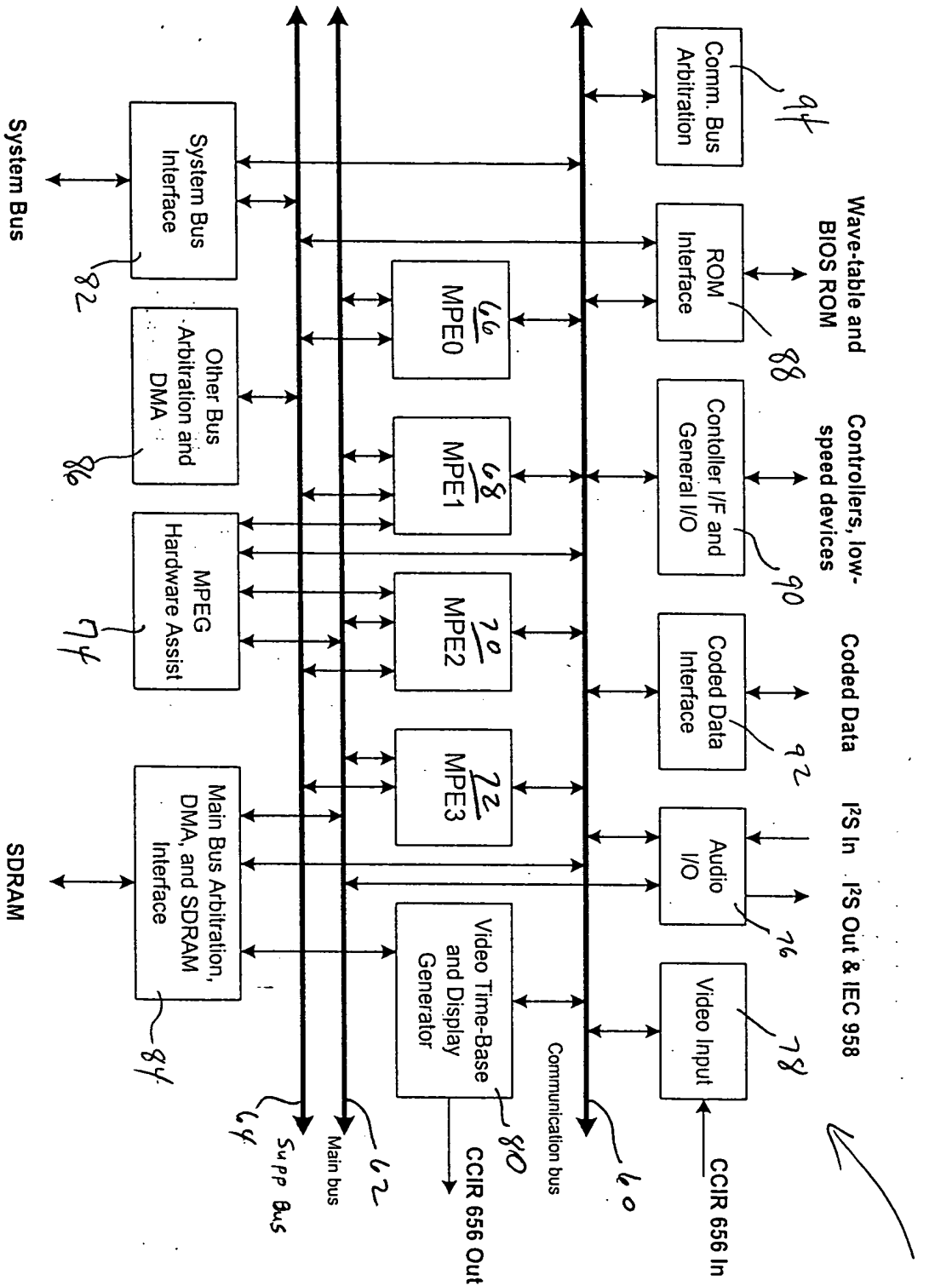


```
graph LR; 25[Compressed Image Generator] --> 30[Media Processing System]; 30 --> 26[Display];
```

The diagram illustrates the Nuon Multi-Media Architecture (30). At the center is the Nuon Multi-Media Processor (MMP) (32). It is connected to DRAM (34) via a Main Bus (32). The MMP (32) is also connected to a System Bus (41). On the left, external components connect to the MMP: Media Data (50), Media Control (52), User Interface (54), and Input/Output Devices (56). On the right, the MMP (32) outputs Video (Composite, S-video, component video) (36) and Audio (2-8 channels) (38) via NTSC/PAL Encoder & DACs (36) and Audio DACs (38) respectively. Below the MMP, a ROM (40) containing BIOS, Audio Tables, and Embedded Applications is connected to the System Bus (41). A DRAM (46) is also connected to the System Bus (41). An optional 'High-End' CPU (44) is connected to the System Bus (41) via an Expansion (42) bus. The entire system is labeled 30.

Figure 2



Patented Jul 10, 2000

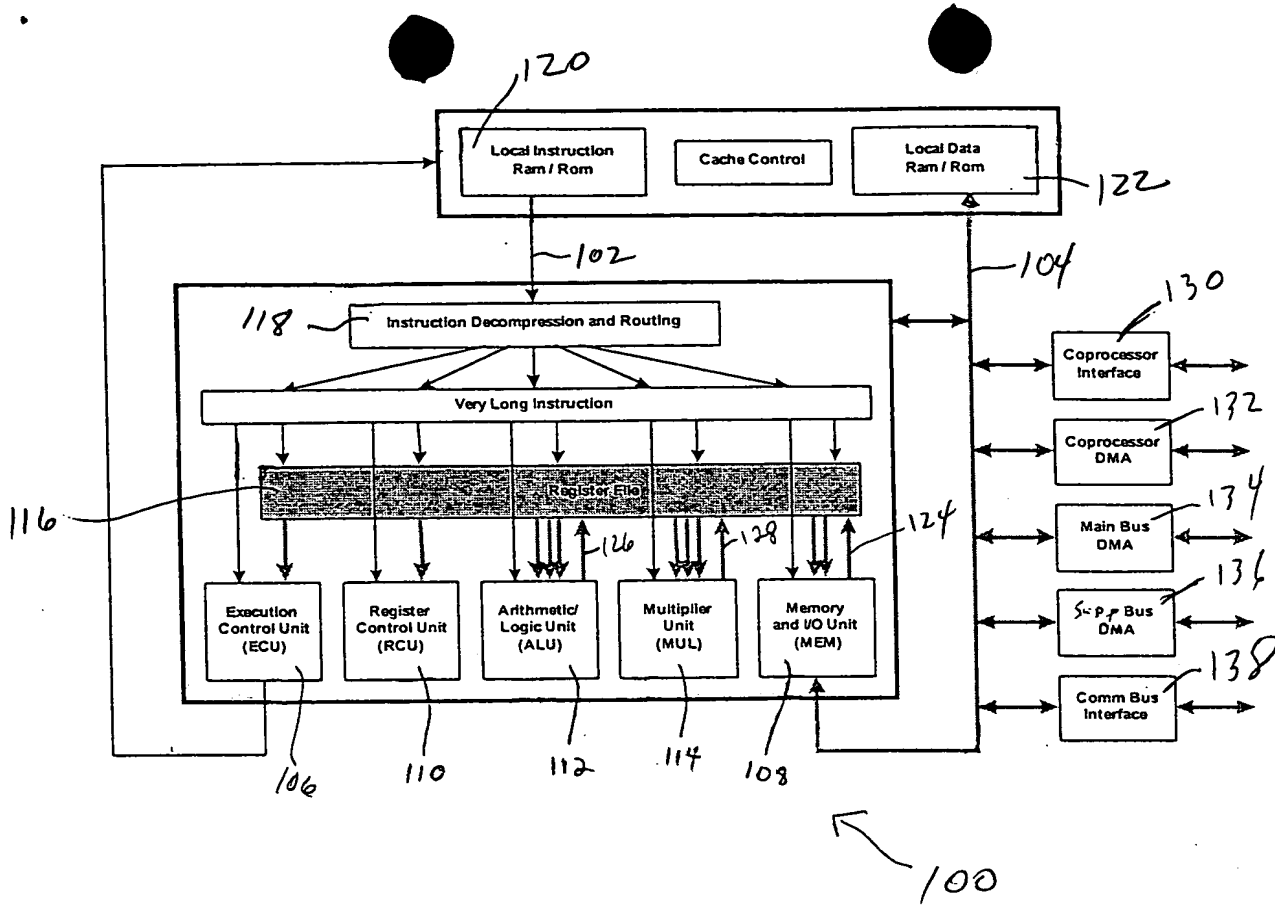


Figure 4

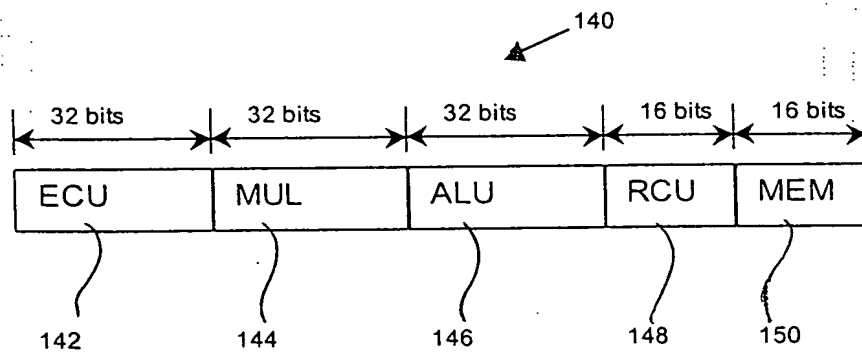


Figure 5

Diagram illustrating the memory layout of a 160-element vector and its various access patterns. The diagram shows five rows: Scalar, Vector, Small Vector, Pixel, and Half Vector. Each row represents a different way of accessing or storing the 160 elements. The Vector row shows a single continuous block of 160 elements. The Small Vector row shows four separate blocks of 31, 1, 31, 2, 31, and 0 elements. The Pixel row shows four separate blocks of 31, 1, 31, 2, 31, and 0 elements. The Half Vector row shows two separate blocks of 80 elements each. The diagram also shows the memory addresses of the start and end of each block.

Access Pattern	Block 1 (Start-End)	Block 2 (Start-End)	Block 3 (Start-End)	Block 4 (Start-End)	Block 5 (Start-End)	Block 6 (Start-End)	Block 7 (Start-End)	Block 8 (Start-End)
Scalar	31-160							
Vector	31-160							
Small Vector	31-174	174-176	176-186	186-188	188-190	190-192		
Pixel	31-194	194-196	196-198	198-200	200-202	202-204		
Half Vector	31-194	194-196						

Figure 6

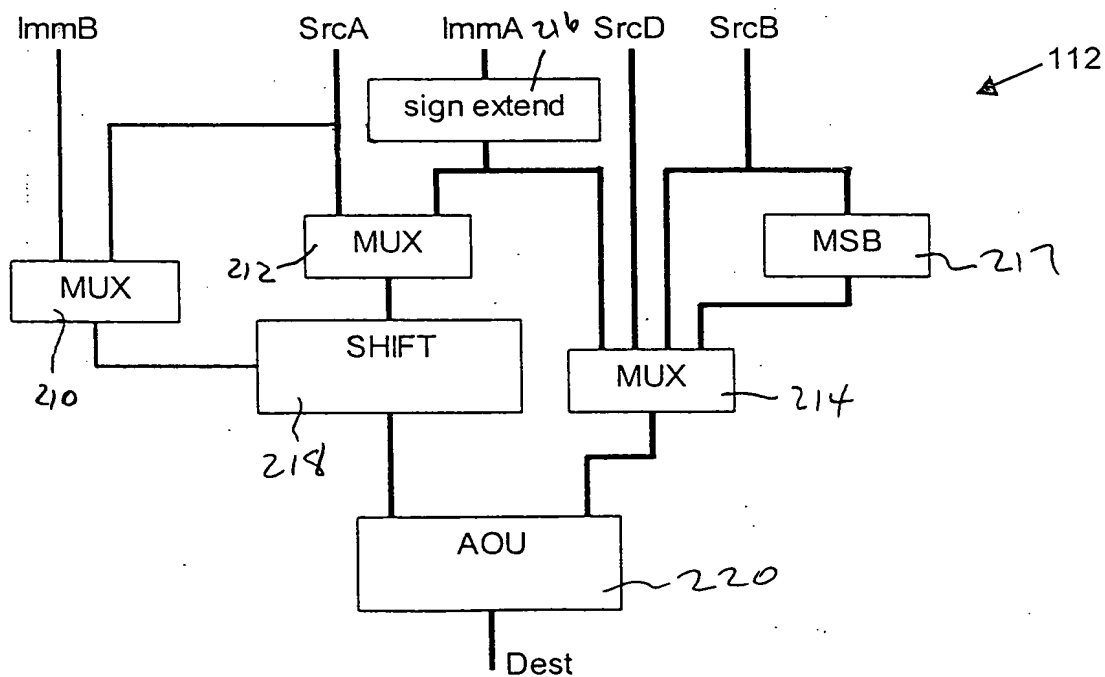


Figure 7

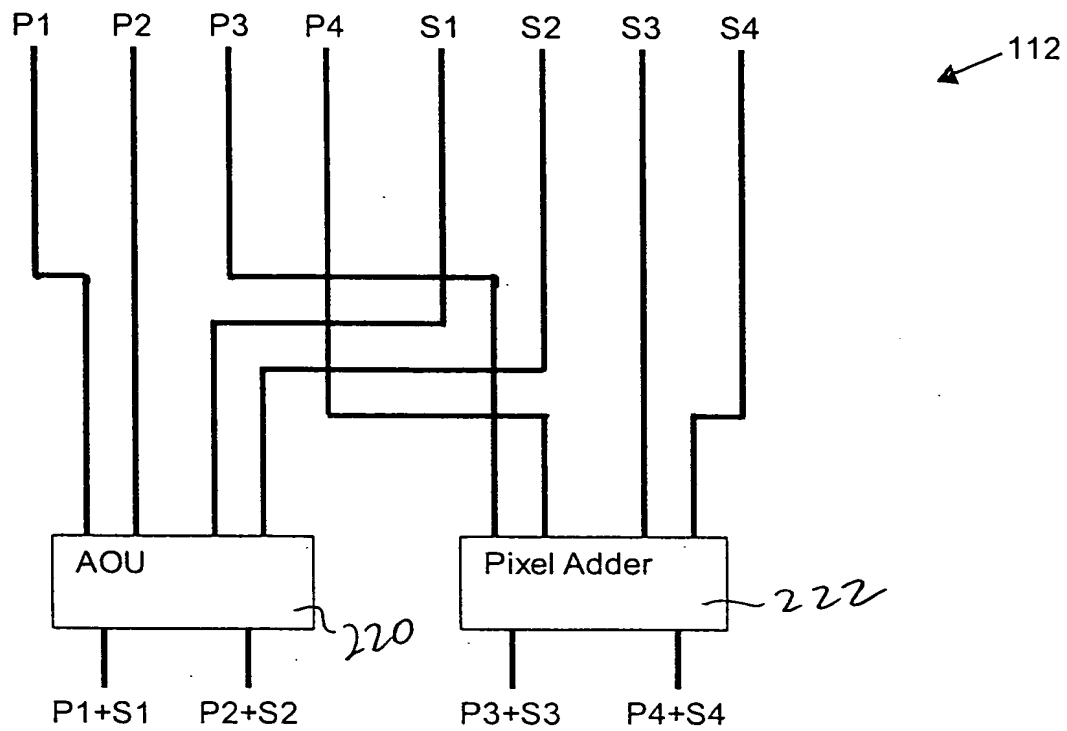


Figure 8

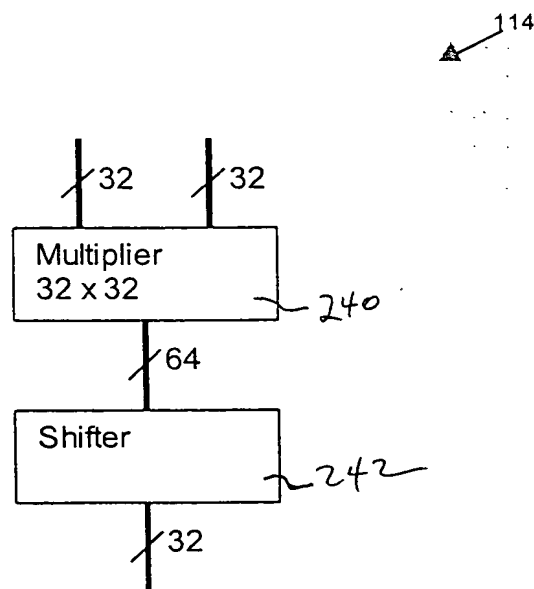


Figure 9

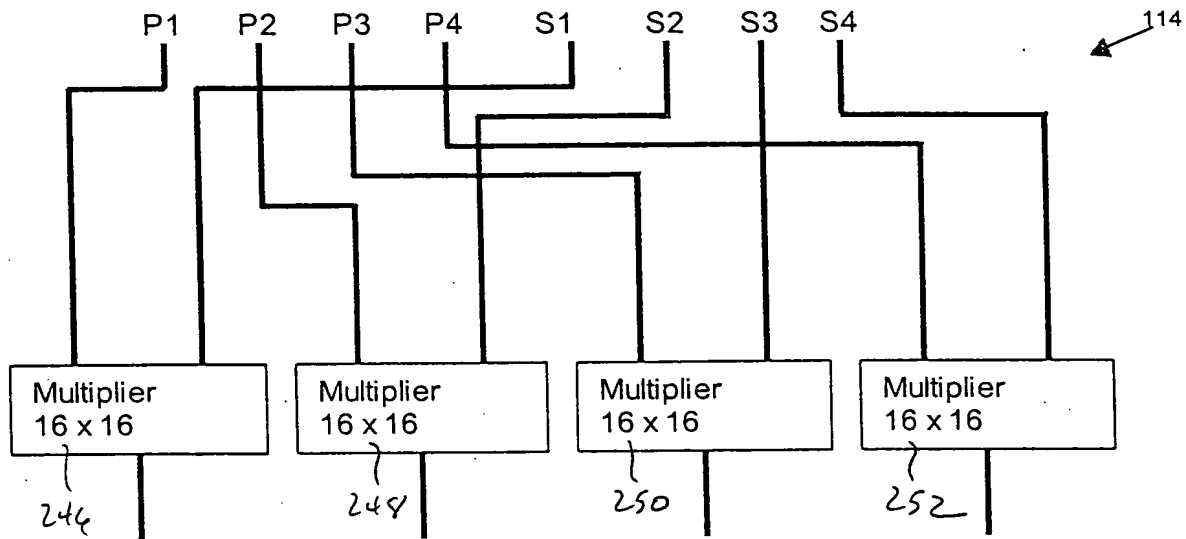


Figure 10